

REMARKS

Re-examination and reconsideration of the subject matter identified in caption, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow, are respectfully requested.

In paragraph (1) of the Office Action, the Examiner states that the independent claims have been amended to recite the language "consisting essentially of." Applicants point out that independent claim 1 is directed to wall and floor coverings based on a carrier wherein the carrier consists essentially of the specified components. Claim 34 is directed to wall and floor coverings comprising a carrier which consists essentially of the specified components. Thus, the present claims are not directed to wall and floor coverings consisting essentially of the components set forth in the claims.

The phrase "consisting essentially of," only excludes ingredients or method steps which would materially affect the basic and novel characteristics of the claimed invention. As discussed on pages 7-8 of the Amendment filed December 1, 2004, the language "consisting essentially of" inserted into the claims was intended to exclude the laminates disclosed in U.S. Patent No. 6,092,622 (Hiers et al.) which includes three fibrous layers, needling from both sides to form tufts on both surfaces of the laminate and two outer adhesive layers, i.e., a prior art structure which was materially different from Applicants' claimed wall and floor coverings. The Examiner appears to have agreed with this position by withdrawing the rejection.

Further, Applicants disagree with the Examiner's statement in paragraph (1) that "structures including a additional layers other than those polymeric coating described in the specification would be precluded from Applicant's invention." The

additional layer or layers applied to the glass fiber side of the carrier are not limited to polymers and not limited only to the polymers disclosed in the specification. Claim 1 specifies "one or more layers" and claim 34 specifies "at least one layer." The terms in a claim are given their broadest reasonable interpretation and are not limited solely to disclosed embodiments. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983).

Turning to the Office Action, claims 1, 4, 5, 9, 10 and 15 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,017,426 to Greiser et al. in view of U.S. Patent No. 6,092,622 to Hiers et al. for the reasons set forth in paragraph (3) of the Final Rejection. Reconsideration of this rejection is respectfully requested for at least the following reasons.

The present claims specify that the organic synthetic fibers in the non-woven mat are thermally fixed and that the needling causes a part of the organic fibers to penetrate through the glass fiber mat and lie adjacent the surface thereof. Thermally-fixed (i.e. thermally shrunk) organic fibers provide thermal and dimensional stability to the wall and floor coverings. Needling to cause the organic fibers to completely penetrate the glass fiber mat and lie adjacent thereto improves the bond between the carrier and subsequent coating(s). Note page 8, line 26 to page 9, line 4 of the specification.

Neither of the above claimed features are disclosed in Greiser et al. '426. Thermally shrunk organic fibers are not mentioned or contemplated in this document. While Greiser et al. '426 discloses that the needles "penetrate through" the glass fiber web, there is no disclosure that a part of the organic fibers penetrate the surface of the glass fiber web and lie adjacent thereto. The statement in paragraph

(3) of the Action that it would have been obvious to have organic fibers lying adjacent to the side of the fiberglass-containing mat is merely conclusionary in the absence of any disclosure in Greiser et al. '426 which would have motivated those of ordinary skill to modify the needling technique therein to provide organic fibers adjacent the surface of the glass fiber-containing mat which would act to interlock and found a subsequent coating to the carrier.

Hiers et al. '622 is relied upon to suggest applying adhesive coatings to the outer layers of the laminates of Greiser et al. '426 to secure the fibers which the Examiner alleges would have penetrated the surface upon needling. Applicants disagree and respectfully submit that those of ordinary skill would not have been motivated to combine the disclosures of these documents for the following reasons.

The laminates disclosed in Greiser et al. '426 consist of a two-layer carrier designed to be coated or impregnated with bitumen, elastomers or plastomers and used as roofing or sealing membranes. The articles disclosed in Hiers et al. '622 are completely different. They are thermal and acoustical insulating primarily for automotive uses composed of three fibrous layers needled to form tufts on both surfaces which are then coated with adhesive to fix the fibers in position and to enable the shield to be attached to an automobile. Those of ordinary skill seeking to improve the properties of roofing or sealing membranes would not be motivated to look to documents in the area of automobile thermal and acoustical shields. Nor would there appear to be any motivation to apply an adhesive outer layer to the fibrous carriers disclosed in Greiser et al. '426 which are to be coated with bitumen, elastomers or plastomers.

For at least these reasons, the §103(a) rejection based on Greiser et al. '426 combined with Hiers et al. '622 should be reconsidered and withdrawn.

Such action is earnestly requested.

Claims 1, 3-5, 9-11, 15, 16 and 32 were rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,616,395 to Baravian et al. in view of U.S. Patent No. 6,092,622 to Hiers et al. and "further evidenced by" U.S. Patent No. 5,171,629 to Heidel et al. for the reasons provided in paragraph (4) of the Office Action.

Reconsideration is requested of this rejection for at least the reasons which follow.

Baravian et al. '395 is directed to the preparation of two-layer laminates composed of a pre-consolidated, thermostabilized, non-woven layer of organic fibers bonded to a mineral fiber layer. The bonding method requires counter-gluing using a thermoplastic or thermoset polymer and may optionally include needling or seam knitting. According to this reference, "consolidation and thermostabilization take place only in the first layer and before assembly with the second layer" (column 6, lines 46-47). Thus, Baravian et al. '395 expressly teaches away from pre-consolidating the mineral fiber layer. Further, no needling conditions are described and the reference does not disclose needling such that some of the organic fibers penetrate entirely through the glass fiber web and lie adjacent to a surface thereof.

The rejection relies on Heidel et al. '629 for a suggestion to employ pre-consolidation of the mineral fiber web of Baravian et al. '395. Since Baravian et al. '395 expressly states that consolidation and thermostabilization should take place only in the synthetic fiber layer thereby teaching away from consolidating the mineral fiber layer, those of ordinary skill would not be motivated to consolidate the mineral fiber layer since to do so would likely have an adverse impact on the properties

desired by patentees. Any chemical bonding of the mineral fibers would not provide consolidation since consolidation thereof is to be avoided.

According to the rejection, it would have been obvious to modify the laminates of Baravian et al. '395 to add tufts and adhesive layers in accordance with the teachings of Hiers et al. '622. Respectfully, Applicants disagree. In the absence of any disclosure in Baravian et al. '395 of any needling conditions, it is not clear why those of ordinary skill would have been motivated to needle the two layers of Baravian et al. '395 in opposite directions, to further provide tufts on both surfaces and then apply outer adhesive layers when the laminates are intended to be coated with bitumen for use as sealing sheets on roofs.

Furthermore, the laminates of Hiers et al. '622 are composed of three fibrous layers with the mineral fiber layer sandwiched between organic fiber layers and needling being conducted from both sides. In contrast, in the laminates of Baravian et al. '395, the mineral fiber layer must be an outer layer to provide the requisite flame retardance.

For at least these reasons, the §103(a) rejection based on Baravian et al. '395 in view of Hiers et al. '622 and Heidel et al. '629 is unsound and should be withdrawn. such action is earnestly solicited.

Claim 13 stands rejected under 35 U.S.C. §103(a) as unpatentable over Baravian et al. '395 in view of Hiers et al. '622 and further in view of U.S. Patent No. 4,522,876 to Hiers for reasons given in paragraph (5) of the Office Action. Reconsideration of this rejection is requested for at least the reasons which follow.

Hiers '876 has been relied upon for its disclosure of various classes of glass fibers for use in glass fiber webs. Even if one skilled in the art were motivated to

combine the disclosure of Hiers '876 with that of Baravian et al. '395 and Hiers et al. '622, the resultant laminate would not suggest the present claimed wall and floor coverings. Moreover, there would have been no motivation of Baravian et al. '395 and Hiers et al. '622 to combine the disclosures for the reasons fully set forth above.

Accordingly, the §103(a) rejection of claim 13 over Baravian et al. '395 in view of Hiers et al. '622 and further in view of Hiers '876 should be reconsidered and withdrawn. Such action is respectfully requested.

Claims 6-8, 14 and 33 were rejected under 35 U.S.C. §103(a) as unpatentable over Baravian et al. '395 in view of Hiers et al. '622 and further in view of Heidel et al. '629 for the reasons given in paragraph (6) of the Final Rejection. Reconsideration and withdrawal of this rejection are requested for at least the following reasons.

The basic combination of Baravian et al. '395 and Hiers et al. '622 fails to disclose or suggest the wall and floor coverings specified in claim 1 for reasons previously elaborated. Baravian et al. '395 teaches away from consolidation of the mineral fiber layer and consolidation of the final two-layered laminate. There would have been no motivation to modify the laminates of Baravian et al. '395 in accordance with the disclosure of Heirs et al. '622 for reasons provided above.

Heidel et al. '629 is relied upon in the rejection because the reference discloses pre-consolidation of glass fiber webs and final consolidation of the laminate by resinous binders. Applicants submit that those of ordinary skill in the art would not be motivated to pre-consolidate the mineral fiber layer and to consolidate the final laminate of Baravian et al. '395 because to do so would be contrary to the express teachings of the reference and would render the laminate of Baravian et al.

'395 incapable of possessing the properties desired. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no motivation to make the proposed modifications. M.P.E.P. §2143.01 (p. 2100-131, Rev. 2, May 2004).

For at least these reasons, the §103(a) rejection over Baravian et al. '395, Hiers et al. '622 and Heidel et al. '629 should be withdrawn. Such action is respectfully requested.

Claim 34 stands finally rejected under 35 U.S.C. §103(a) as unpatentable over Baravian et al. '395 in view of Hiers et al. '622 and further in view of U.S. Patent No. 4,569,088 to Frankenburg et al. for reasons given in paragraph (7) of the Office Action. Reconsideration is requested of this rejection for at least the following reasons.

Frankenburg et al. '088 is cited for its alleged equivalence of hydraulic or mechanical needling. The entire disclosure of this document relates to the manufacture of garments. Neither Baravian et al. '395 nor Hiers et al. '622 are directed to garment manufacture. There would have been no motivation to look in the direction of garment manufacture as in Frankenburg et al. '088 for modification of laminates composed of glass fiber layers and synthetic fiber layers for use in bitumen-impregnated roofing membranes or thermal/acoustical automotive shields. Accordingly, the §103(a) rejection of claim 34 is unsound and should be withdrawn.

Claims 1, 3-11, 13, 15 and 16 were provisionally rejected on the ground of obviousness double patenting over claims 1, 2, 4-6, 9, 10 and 17 of copending application, Serial No. 09/619,535. The Examiner's reasons are given in paragraph (9) of the Office Action.

Applicants disagree with the rejection and believe that the respective claims are directed to patentably distinct inventions. However, to expedite prosecution of this application, a Terminal Disclaimer is being submitted herewith. As such, this rejection has been obviated and should be withdrawn.

Claims 1, 4, 5, 9, 10 and 15 were rejected on the ground of obviousness double patenting over claims 1-6 of U.S. Patent No. 5,017,426 (Greiser et al.) in view of U.S. Patent No. 4,522,876 (Hiers) as set forth in paragraph (10) of the Office Action. Withdrawal of this rejection is requested for at least the following reasons.

The claims of Greiser et al. '426 are directed to a laminate comprising a pre-consolidated non-woven web of synthetic fibers and a pre-consolidated web of mineral fibers, both webs bonded by needling. The claims do not recite additional layers and do not specify that needling is performed such that a part of the synthetic fibers penetrate through the glass fiber layer and lie adjacent to a surface thereof.

Hiers '876 does not disclose needling wherein a part of the organic fibers penetrate the mineral fiber layer and lie adjacent to a surface thereof. While the reference mentions coatings (column 11, lines 55-66), this is in connection with the production of fabrics suitable for the preparation of filters. Those of ordinary skill concerned with improving the properties of the carriers claimed in Greiser et al. '426 would not be motivated to apply the fabric coatings of Hiers '876. Even if the claimed laminates of Greiser et al. '426 were so modified, the resultant composite would not have the structure of the presently claimed wall and floor coverings.

For at least these reasons, the obviousness double patenting rejection based on claims 1-6 of Greiser et al. '426 in view of Hiers '876 should be withdrawn. Such action is earnestly solicited.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (703) 838-6683 at her earliest convenience.

Respectfully submitted,

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Date: May 23, 2005

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